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EXAMINER	
NGUYEN, HOA CAO	
ART UNIT	PAPER NUMBER
2841	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,752	KRAMER ET AL.	
	Examiner	Art Unit	
	Hoa C. Nguyen	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *1-2 and 4-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3 and 13-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

REOPENED PROSECUTION

1. Upon review of applicants' arguments in the Appeal Brief, filed on 8/3/07, it was observed that the prior art references, Hatton (US 20030207609) and Gossmann (US 6551124) are in the same field of art. Because, regardless the intended of use of each reference, both teach a connecting system that uses pins/teeth piercing through the insulating layer of a wire/cable for contacting the conductor core of the wire/cable. The intended of use of each system is merely an application of such connecting system.

However, applicants' arguments regarding independent claim 3 with respect to the rejection of the claim with respect to the reason in combining both references is persuasive. Therefore, the prosecution for this application is reopened.

Claims 3 and 13-16 are considered on the merits in this Office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 3, 13-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatton (US 20030207609) in view of Gossmann (US 6551124).

Regarding claim 3, as shown in figure 4, Hatton discloses an LED module comprising:

(a) A circuit board (the board on left of the figure having attached LEDs, see paragraph 6)) secured to a base 10 (rail section, see paragraph 40) containing at least two electrical leads 26 (wire, see paragraph 46);

(b) the circuit board having an LED (clearly shown in figure 4) and at least two contact teeth 46 (pins, see paragraph 46) whereby each contact tooth makes electrical contact with one of the at least two electrical leads 26.

However, Hatton fails to disclose a gasket with a thickness covers a side of the circuit board and where the at least two contact teeth traverse the thickness of the gasket to make electrical contact with the at least two electrical leads.

It is noted that Hatton discloses the electrical lead 26 each resides within a groove of channel 13 (four channels is shown in figure 4, see par.40). Thus, having a gasket formed in between the circuit board and the electrical leads 26 is unreasonable.

Gossmann, as shown in figure 1, discloses a contact device 2 (col.4:1-26) for flat band cable comprising pins 20 (contact screws), a gasket 6, a base 8 (housing bottom), and cable 10 (ribbon cable having conductors 12). And, as shown in figure 2, Gossmann further discloses that the gasket 6 covered the section that housed the pins 20 where the pins 20 traverse the thickness of the gasket 6 to make electrical contact with the electrical lead 12 (conductors) of the cable 10. The gasket provides a sealing system to protect the contacts between the cable and the contact elements (the pins, col.1:52 and also see col.2:30-47). Gossmann further teaches that groove-spring configurations can be drop out by using the gasket (col.2:5-8 and also col.2:30-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the module of Hatton by removing the groove or channel 13 of the base 10 and providing a gasket 6 of Gossmann, with a thickness covers a side of the circuit board where the at least two contact teeth 46 traverse the thickness of the gasket to make electrical contact with the at least two electrical leads 26 in order to provide a sealing system between contacts (teaches by Gossmann, see col.2:5-8 and 30-47).

Regarding claim 13, Hatton in view of Gossmann discloses every limitation as shown in claim 3 above but fails to disclose the gasket, which comprises vinyl foam tape.

Vinyl foam tape for making gaskets is old and well known in the art. It is merely a matter of choices depending upon particular applications, allowable cost, or whether or not a preferred material is widely available in the supplying market.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select vinyl foam tape as a preferred choice of material for the gasket in order to easily obtain from the supplying market. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 14, Hatton in view of Gossmann discloses every limitation as show in claim 3 above but fails to disclose the gasket is attached to the circuit board by pressure sensitive double-sided adhesive.

A gasket is attached to a circuit board by pressure sensitive double-sided adhesive tape or by another adhesive mean (an insulating glue layer for example) is old and well known in the art. It is merely a matter of design choice depending upon particular applications to use or not to use the pressure sensitive double-sided adhesive tape for attaching the gasket to a circuit board.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use pressure sensitive double-sided adhesive tape for attaching the gasket to the circuit board in order to prevent misalignments of the gasket during assembling the module with electrical wires/leads.

Regarding claim 16, Hatton in view of Gossmann disclose every limitation as shown in claims 3 and above but fails to disclose the at least two contact teeth that are each coated in wax.

A coating on a conductive material is old and well known for protecting the material from oxidation, which is known to reduce the surface conductivity of the material.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to coat the contact teeth 46 with wax instead of other materials (gold/copper for example) in order to save cost. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatton and Gossmann as applied to claim 3 above, and further in view of Bogursky et al. (US 5451174).

Regarding claim 15, Hatton in view of Gossmann discloses every limitation as shown in claim 3 above, but fails to disclose a shoulder mount for each contact tooth.

Bogursky, as shown in figures 9-12, discloses a plurality of surface mounting pins for circuit boards, in which pin 50 (figure 9A, for illustration purpose only) has a shoulder mount 51 (a base) mounted at the base of the pin.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add a shoulder mount 51, taught by Bogursky, for each contact tooth in order to reinforce the strength of the pin when penetrating into a wire.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gossmann (US 6551124) in view of Mick (US 5722852).

Regarding claim 3, as shown in figures 1 and 3, Gossmann discloses a contacting device 2 (col.1:3) comprising:

(a) A circuit board (the Examiner considers the flat bottom section of the housing top 4 (figure 1, col.4:4) that has contact region 22 (on the bottom side, figure 1, col.4:15) and contact element 18 (on the top side, figure 3, col.5:38) as a circuit board) secured to a base 8 (housing bottom, col.4:6) containing at least two electrical leads 20 (crews, figure 1, col.4:12);

(b) the circuit board having at least two contact teeth 21 (contact tips, figure 1, col.4:13) whereby each contact tooth makes electrical contact with one of the at least two electrical leads 12 (conductor part of cable 10, figure 1, col.4:45-46);

(c) where a gasket 6 (figure 1, col.4:6) with a thickness covers a side of the circuit board and where the at least two contact teeth 20 traverse the thickness of the gasket 6 to make electrical contact with the at least two electrical leads 12.

However, Gossmann fails to the circuit board has an LED.

Miek, as shown in figures 1 and 4, discloses a contacting making device (col.1:5-6) comprising a top and bottom housing 2 and 1 (col.2:50-60); contact teeth 11 (col.4:45-53) piercing through cable 5 (flat cable, col.2:63) for electrical contact with the conductor part of the cable 5; a circuit board 42 (col.3:60) having an LED 44 (col.3:46) formed on the housing top 2 for optical indicating the operating state of the cable 5 (inherently, the electrical conductivity of the teeth 11 and the conductor of the cable 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the housing top 4 of Gossmann to have an LED(s) mounted on the surface of the circuit board (on the top side) in order to indicate the operating state of the cable 10 or the electrical conductivity of the teeth 20 and the conductor 12 of the cable 10.

Citation of Relevant Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Nelson (US 4497137) discloses a weather strip.

Weinstein (US 4141339) discloses a solar heat collector.

Sugimori et al. (US 20020101132) discloses an electronic component and manufacturing method for the same.

Inokuchi et al. (US 20030077442) disclose a release liner and pressure-sensitive adhesive tape or sheet using same.

Chen et al. (US 6521309) discloses a double-sided single-liner pressure-sensitive adhesive tape.

Bojarczuk et al. (US 6092811) discloses a hybrid gasket.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa C. Nguyen whose telephone number is 571-272-8293. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoa C. Nguyen

TUAN T. DINH
PRIMARY EXAMINER
10/27/07.